

Please type a plus sign (+) inside this box

[+]

PTO/SB/01 (11_00)

Approved for use through 10/31/2002, OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

BP3018

First Inventor

Ba-Zhong Shen, Ph.D.

Title

16 QAM AND 16 APSK TTCC (TURBO TRELLIS CODED MODULATION) WITH MINIMUM BANDWIDTH OF 3 BIT/S/HZ

Express Mail Label No.

EV 082608767 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents

1. Fee Transmittal Form (e.g. PTO/SB/17)
(submit an original and a duplicate for fee processing)
2. Applicant claims small entity status.
See 37 CFR 1.27.
3. Specification [Total Pages 77]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R&D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings *(if filed)*
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. Drawing(s) (35 U.S.C. 113) [Total Pages 36]
5. Oath or Declaration [Total Pages 3]
 - a. Newly executed (original or copy)
Copy from a prior application (37 CFR 1.63 (d))
 - b. *(for continuation/divisional with Box 18 completed)*
 - i. **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. Application Data Sheet. See 37 CFR 1.76

ADDRESS TO:

Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. CD-ROM or CD-R in duplicate, large table or Computer Program *(Appendix)*
8. Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all necessary)*
 - a. Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. CD-ROM or CD-R (2 copies); or
 - ii. paper
 - c. Statements verifying identity of above copies

19587 U.S. PTO
10/636008
08/07/03

ACCOMPANYING APPLICATION PARTS

9. Assignment Papers (cover sheet & documents(s))
10. 37 CFR 3.73(b) Statement *(when there is an assignee)*
 Power of Attorney
11. English Translation Document *(if applicable)*
12. Information Disclosure Statement (IDS)/PTO-1449 Copies of IDS Citations
13. Preliminary Amendment
14. Return Receipt Postcard (MPEP 503) *(Should be specifically itemized)*
15. Certified Copy of Priority Document(s)
16. Request and Certification under 35 U.S.C. 122 *(if foreign priority is claimed)*
17. (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
- Other: PTO-2038 Forms for \$1500 and \$40 LOA

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation Divisional Continuation-in-part (CIP)

of prior application No. _____

Prior application information:

Examiner_

Group Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

Customer Number or Bar Code Label 34,399 insert customer no. or attach bar code label here Correspondence address below

Name	Shayne X. Short, Ph.D.		
Address	P.O. Box 160727		
City	Austin	State	TX
Country	USA	Telephone	(512) 825-1145
Zip Code	78716-0727		
FAX	(512) 394-0054		

Name (Print/Type)	Shayne X. Short, Ph.D.	Registration No. (Atty/Agent)	45,105
-------------------	------------------------	-------------------------------	--------

Signature	SXShort	Date	8/7/2003
-----------	---------	------	----------

Please type a plus sign (+) inside this box

PTO/SB/17 (11_00)

Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$) \$1540.00

Complete if Known

Application Number	
Filing Date	
First Named Inventor	Ba-Zhong Shen, Ph.D.
Examiner Name	
Group Art Unit	
Atty Docket No.	BP3018

METHOD OF PAYMENT

1. The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number

Deposit Account Name

Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

Applicant claims small entity status. See 37 CFR 1.27

2. Payment Enclosed:

Check Credit card Money Order Other

FEE CALCULATION

1. BASIC FILING FEE

Fee Description

Fee Paid

Utility filing fee	<input type="text" value="750.00"/>
Design filing fee	<input type="text"/>
Plant filing fee	<input type="text"/>
Reissue filing fee	<input type="text"/>
Provisional filing fee	<input type="text"/>

SUBTOTAL(1) (\$) **\$750.00**

2. EXTRA CLAIM FEES

Fee From Below

Extra Claims Fee Paid

Total Claims	<input type="text" value="57"/>	-20**	<input type="text" value="37"/>	X	<input type="text" value="18"/>	=	<input type="text" value="666.00"/>
Independent Claims	<input type="text" value="4"/>	-3**	<input type="text" value="1"/>	X	<input type="text" value="84"/>	=	<input type="text" value="84.00"/>
Multiple Dependent	<input type="text"/>		<input type="text"/>		<input type="text"/>	=	<input type="text"/>

Fee Description

Claims in excess of 20

Independent claims in excess of 3

**Reissue independent claims over original patent

**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) **750.00**

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3.. ADDITIONAL FEES

Fee Description

Surcharge-late filing fee or oath

Surcharge- late provisional filing fee or or cover sheet

Non-english specifications

For filing a request for ex parte reexamination

Requesting publication of SIR prior to Examiner action

Requesting publication of SIR after Examiner action

Extension for reply within first month

Extension for reply within second month

Extension for reply within third month

Extension for reply within fourth month

Extension for reply within fifth month

Notice of Appeal

Filing a brief in support of appeal

Request for oral hearing

Petition to institute a public use proceeding

Petition to revive - unavoidable

Petition to revive unintentional

Utility Issue Fee (or reissue)

Design Issue Fee

Plant Issue Fee

Petitions to the Commissioner

Processing fee under 37 CFR 1.17(q)

Submissions of Information Disclosure Stmt

Recording each patent assignment per property (times number of properties)

\$40.00

Filing a submission after final rejection (37 CFR 1.129(a))

For each additional invention to be examined (37 CFR 1.129(b))

Request for Continued Examination (RCE)

Request for expedited Examination of design applicat

Other fee (specify) _____

Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

\$40.00

SUBMITTED BY

Complete (if applicable)

Name (Print Type)	Shayne X. Short, Ph.D.	Registration No. (Attorney Agent)	45,105	Telephone	(512) 825-1145
Signature	<i>SX Short</i>			Date	8-7-2003

SEND TO: Assistant Commissioner for Patents, Washington, DC 20231



BROADCOM CORPORATION
16215 Alton Parkway
Irvine, California 92618

Phone: 949-450-8700
Fax: 949-450-8710

May 20, 2003

To whom it may concern:

I, Henry Samueli, hereby authorize Dee Henderson, Intellectual Property Portfolio Manager, to execute documents relating to US and foreign patent and trademark matters on behalf of Broadcom Corporation and/or its subsidiaries.

A handwritten signature in black ink, appearing to read "Henry Samueli". The signature is fluid and cursive, with a distinct 'H' at the beginning and a 's' at the end.

Henry Samueli, Ph.D.
Chief Technical Officer and Co-Chairman